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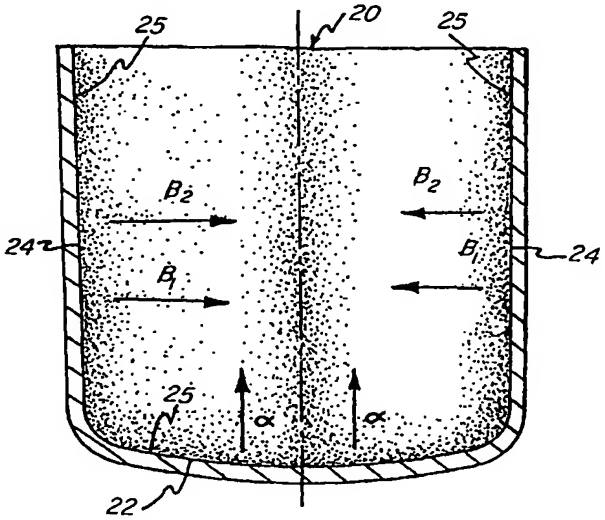
(54) Title: NON-PLANAR SPUTTER TARGETS HAVING CRYSTALLOGRAPHIC ORIENTATIONS PROMOTING UNIFORM DEPOSITION



(57) Abstract: A non-planar sputter target having differing crystallographic orientations in portions of the sputter target surface (25) that promote more desirable deposition and density patterns of material sputtered from the target surface onto a substrate is disclosed. A closed dome (22) end of the sputter target (20) is comprised of a first crystallographic orientation and sidewalls (24) of the sputter target are comprised of a crystallographic orientation different from that of the dome. The sputter target is formed, preferably by hydroforming or other metal working techniques, in the absence of annealing. The hydroforming manipulations result in the different crystallographic orientations while minimizing, or ideally omitting, the application of heat. Quick and cost effective non-planar sputter targets that are easily repeatably producable are achievable as a result. There are vectors (α, β1, β2) in the target.

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